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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,125	02/26/2002	Jae Deok Park	8733.528.00	5395
30827	7590	04/26/2005	EXAMINER	
MCKENNA LONG & ALDRIDGE LLP 1900 K STREET, NW WASHINGTON, DC 20006			LEFLORE, LAUREL E	
			ART UNIT	PAPER NUMBER
			2673	

DATE MAILED: 04/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/082,125	PARK, JAE DEOK
	<b>Examiner</b>	<b>Art Unit</b>
	Laurel E LeFlore	2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 09 November 2004.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-17 is/are pending in the application.  
 4a) Of the above claim(s) 2,7-9 and 11-17 is/are withdrawn from consideration.  
 5) Claim(s) 3-6 and 10 is/are allowed.  
 6) Claim(s) 1 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 09 August 2002 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the first and second capacitors of claim 4 must be shown or the feature(s) canceled from the claim(s). The drawings depict a single capacitor that is connected as in claim 4, not a first and second capacitor. Please note that C2, as depicted in figure 4 is a capacitor "connected between a contact node between the drain of the second switching element and the source of the third switching element and the Vss terminal", as is the recited "first capacitor" of claim 4. However, C2 is also a capacitor "connected between the gate of the sixth switching element and the Vss terminal". As is the recited "second capacitor" of claim 4. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

2. The disclosure is objected to because of the following informalities: The following sentence in paragraph [0028] is unclear: "Because the system manufacturers who make the products that has a LCD panel want a display device capable of scanning images in more than one direction, this is a serious limitation of the related art LCD panels." Examiner suggests, "Because the system manufacturers who make the products that [[has a]] have LCD panels want a display device capable of scanning images in more than one direction, this is a serious limitation of the related art LCD panels."

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Takeda et al. 4,799,057.

5. In regard to claim 1, Takeda discloses a bi-directional driving circuit of a liquid crystal display (LCD) panel having a plurality of blocks. See column 1, lines 54-59,

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disclosing, "a driving circuit of the present invention, for a matrix liquid crystal display device...is divided into a plurality of blocks". Note, as depicted in figure 2, that the matrix liquid crystal display has a row and column driver and is thus driven bi-directionally.

Takeda further discloses that each block comprises a second start pulse input terminal for receiving one of the start pulse and an output signal of a next block. See column 4, lines 19-24, disclosing, "Referring to FIG. 1, 41 denotes a sampling circuit which is divided into four blocks 41a~41d. The operation of the blocks are controlled by control signals Ea~Ed respectively. That is, each sampling circuit block is operated when the corresponding control signal is of high level". Inherently, there is an input terminal in each of the four blocks that receives this control signal, which is a start pulse. Thus, Takeda discloses that each block comprises a second start pulse input terminal for receiving one of the start pulse and an output signal of a next block. Specifically, each block comprises a second start pulse input terminal for receiving the start pulse.

Takeda further discloses that each block comprises a first start pulse input terminal for receiving one of a start pulse and an output signal of a previous block. See column 5, lines 39-65, disclosing, "FIGS. 6(A) and (B) are another example of the sampling circuit block 41a in the sampling circuit 41 and its driving waveform respectively...a pulse "D" (high level) to be shifted is inputted in the circuit...so that the circuit starts operation. When the pulse is sequentially shifted to the final stage q.sub.m, q.sub.m serves as an input pulse "D" for the next block. On receiving the

pulse "D", the next circuit block starts operation...the sampling circuit of the above construction is automatically actuated by the input pulse "D" and automatically interrupted when operation is over". Thus, each block has inherently has a terminal that receives this output signal of a previous block. Thus, Takeda discloses that each block comprises a first start pulse input terminal for receiving one of a start pulse and an output signal of a previous block. Specifically, Takeda discloses that each block comprises a first start pulse input terminal for receiving an output signal of a previous block.

***Allowable Subject Matter***

6. Claims 3-6 and 10 are allowed.
7. The following is an examiner's statement of reasons for allowance: The particular configuration of the first through ninth switching elements, as recited in claim 3, in a bi-directional driving circuit block, was not found in any prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Response to Arguments***

8. Applicant has amended claims 3 and 5 to overcome the 35 USC 112, second paragraph, rejections of claims 3-6 and 10. The 35 USC 112, second paragraph, rejections of claims 3-6 and 10 are withdrawn.

9. Examiner notes that the inventive entity has been established to be a single inventor for the record.

10. Applicant's arguments filed 9 November 2004 have been fully considered but they are not persuasive. In regard to applicant's arguments on pages 10-11, see the above rejection of claim 1 for further clarification.

***Conclusion***

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laurel E LeFlore whose telephone number is (571) 272-7672. The examiner can normally be reached on Monday-Friday 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ZEE  
LEL  
18 April 2005

  
BIPIN SHALWALA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600